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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/516,792	03/01/2000	Steven H. M. Wallman	10392/46701	2856

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EXAMINER
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KARMIS, STEFANOS

ART UNIT	PAPER NUMBER
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3624

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/516,792

Applicant(s)

WALLMAN, STEVEN H. M.

Examiner

Stefano Karmis

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NW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-87 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-87 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This communication is in response to Applicant's amendment filed 18 August 2004.

#### ***Status of Claims***

2. Claims 1-87 are left as originally filed. Therefore claims 1-87 are under prosecution in this application.

#### ***Response to Amendment***

3. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

#### ***Response to Arguments***

4. Applicant's arguments, filed 18 August 2004, with respect to the rejection(s) of claim(s) 1-87 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made. Therefore claims 1-87 are rejected and Applicants request for allowance is respectfully denied.

5. Applicant's arguments with respect to claim 1-87 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2, 24, and 56 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, claim 2 in the preamble recites "A method for executing trades in at least one instrument comprising." However there is no trade execution performed in the body of the claim. Claims 24 and 56 are rejected in a similar manner to that of claim 2.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-8, 12-19, 24-27, 31-37, 41-59, 63-82, 86, and 87 are rejected under 35 U.S.C. 102(e) as being anticipated by Breen et al. (hereinafter Breen) U.S. Patent 6,615,188.

Regarding independent claims 1 and 12, Breen discloses a method for trading a plurality of orders for at least one instrument comprising: combining a value-based order for the at least one instrument and a share-based order for the at least one instrument to form a plurality of contingent orders for the at least one instrument (column 9, lines 18-32); executing at least one trade according to one of the plurality of contingent orders (column 12, lines 1-27 and Figure 2).

Regarding independent claims 2 and 13, Breen discloses a method for executing trades in at least one instrument comprising: combining a value-based order for the at least one instrument and a share-based order for the at least one instrument to create a final trading order for the at least one instrument (column 9, lines 18-32 and column 10, lines 1-24); converting the final trading order into a series of contingent orders for the at least one instrument specifying a number of shares of the at least one instrument to be traded at a schedule of prices (column 12, lines 1-27 and Figure 2).

Claims 3 and 14, netting a plurality of value-based trading orders for at least one instrument against each other to create a net value-based trading order for the at least one instrument (column 8, lines 49-62 and column 9, lines 18-32).

Claims 4 and 15, netting a plurality of share-based trading orders for at least one instrument against each other to create a net share-based trading order for the at least one instrument (column 8, lines 49-62 and column 9, lines 18-32).

Claims 5 and 16, converting a value-based order for the at least one instrument and a share-based order for the at least one instrument to form a plurality of contingent orders for the at least one instrument (column 9, lines 18-32 and column 10, lines 1-25).

Claims 6 and 17, modifying an amount specified in a value-based sell order, if a total value of a quantity of the instrument held by an originator of the value-based sell order in a specified value basis in the value-based sell order, based on a prevailing price of the instrument, is less than the amount specified in the value-based sell order (column 13, lines 3-15).

Claims 7, 8, 18 and 19 if a total value of a quantity of the instrument held by an originator of a value-based sell order in a specified value basis in the value-based sell order, based on a prevailing price of the instrument, is less than the amount specified in the value-based sell order, modifying the amount of the value-based sell order to be equal to the total value of the quantity of the instrument held by the originator of the value-based sell order in the specified value basis using the prevailing price of the instrument (column 9, lines 49-61 and column 12, lines 28-51).

Regarding independent claim 24, netting a plurality of value-based trading orders for at least one instrument against each other to create a net value-based trading order for the at least one instrument (column 8, lines 49-62 and column 9, lines 18-32); netting a plurality of share-based trading orders for at least one instrument against each other to create a net share-based trading order for the at least one instrument (column 8, lines 49-62 and column 9, lines 18-32);

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converting a value-based order for the at least one instrument and a share-based order for the at least one instrument to form a plurality of contingent orders for the at least one instrument specifying a number of shares of the at least one instrument to be traded at a schedule of prices (column 9, lines 18-32 and column 10, lines 1-25).

Claim 26, modifying an amount specified in a value-based sell order, if a total value of a quantity of the instrument held by an originator of the value-based sell order in a specified value basis in the value-based sell order, based on a prevailing price of the instrument, is less than the amount specified in the value-based sell order (column 13, lines 3-15).

Claims 26 and 27 modifying the amount of the value-based sell order to be equal to the total value of the quantity of the instrument held by the originator of the value-based sell order in the specified value basis using the prevailing price of the instrument (column 9, lines 49-61 and column 12, lines 28-51).

Regarding independent claim 31, Breen discloses an apparatus for trading a plurality of orders for at least one instrument comprising: a processor coupled to a memory containing instructions that when executed by the processor cause the processor to receive a plurality of value-based orders for the at least one instrument from a first plurality of investors via said communications network and to receive a plurality of share-based orders for the at least one instrument from a second plurality of investors via said communications network; and transmit a

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plurality of contingent orders to a third party market maker for trade in the at least one instrument (column 8, lines 6-48 and Figure 1).

Claim 32, the instructions further cause the processor to store the received plurality of value-based orders for the at least one instrument and the plurality of share-based orders for the at least one instrument (column 8, lines 6-48 and Figure 1).

Regarding independent claims 33 and 65, Breen discloses a processor coupled to a memory containing instructions that when executed by the processor cause the processor to receive a plurality of trading orders, including a plurality of value-based trading orders and a plurality of share-based trading orders (column 8, lines 49-62 and column 9, lines 18-32); netting a plurality of share-based trading orders for at least one instrument against each other to create a net share-based trading order for the at least one instrument (column 8, lines 49-62 and column 9, lines 18-32); converting a value-based order for the at least one instrument and a share-based order for the at least one instrument to form a plurality of contingent orders for the at least one instrument specifying a number of shares of the at least one instrument to be traded at a schedule of prices(column 9, lines 18-32 and column 10, lines 1-25).; transmit the series of contingent orders for the at least one instrument to a third party market maker for execution (column 12, lines 1-25 and Figure 1).



Claim 34, the instructions further cause the processor to store the received plurality of value-based orders for the at least one instrument and the plurality of share-based orders for the at least one instrument (column 8, lines 6-48 and Figure 1).

Claim 35, modifying an amount specified in a value-based sell order, if a total value of a quantity of the instrument held by an originator of the value-based sell order in a specified value basis in the value-based sell order, based on a prevailing price of the instrument, is less than the amount specified in the value-based sell order (column 13, lines 3-15).

Claims 36 and 37 modifying the amount of the value-based sell order to be equal to the total value of the quantity of the instrument held by the originator of the value-based sell order in the specified value basis using the prevailing price of the instrument (column 9, lines 49-61 and column 12, lines 28-51).

Regarding independent claim 41, 63, 64, 86 and 87, Breen discloses a method for processing a plurality of trading orders for an instrument comprising: a processor coupled to a memory containing instruction that when executed by the processor cause the processor to: receive a plurality of value-based trading orders, each specified in a particular value basis, receive a plurality of share-based trading orders (column 9, lines 18-32); net all value based trading orders in a similar value basis to create a plurality of net similar-value-basis-value-based trading orders, convert the plurality of net similar-value-basis-value-based trading orders into a plurality of standard-currency based trading orders using a predetermined exchange rate with

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regard to value basis in the standard currency (column 12, lines 1-27); net the plurality of standard-currency based trading orders to create a net standard-currency-based trading order, convert the net standard –currency based trading order to a converted share-based trading order using a predetermined price for the instrument in the standard currency, and net the converted standard currency based trading order and the plurality of share based trading orders to form a plurality of contingent orders (column 12, lines 1-27 and Figure 2 and Figure 3).

Claim 42, receiving a plurality of value-based orders for the at least one instrument from a first plurality of investors, receiving a plurality of share-based orders for the at least one instrument from a second plurality of investors (column 9, lines 18-32); and executing one of a plurality of contingent orders in the at least one instrument (column 12, lines 1-27).

Claims 43, 44 and 66, aggregating all value-based buy orders for the at least one instrument into a single value-based buy order for the at least one instrument; and aggregating all value-based sell orders for the at least one instrument into a single value-based sell order for the at least one instrument (column 10, lines 1-25).

Claims 45, 46 and 67, netting the single dollar-based buy order for the at least one instrument against the single value-based sell order for at least one instrument to form a single value-based trading order for the at least one instrument (column 12, lines 1-27).

Claims 47 and 68-70, aggregating all value-based buy orders for the at least one instrument into a single value-based buy order for the at least one instrument; and aggregating all value-based sell orders for the at least one instrument into a single value-based sell order for the at least one instrument (column 10, lines 1-25); netting the single dollar-based buy order for the at least one instrument against the single value-based sell order for at least one instrument to form a single value-based trading order for the at least one instrument (column 12, lines 1-27).

Claims 48, 49, 71, and 72, converting the single value-based trading order for the at least one instrument into a share-based trading order for the at least one instrument using a predetermined price per share and forming a plurality of contingent orders for the at least one instrument (column 12, lines 1-27 and column 12, lines 52-67).

Claims 50-55 and 73-78, the predetermined price includes a midpoint between a bid price and an ask price, a weighted average for both buy and sell orders (column 8, lines 18-62 and column 12, lines 52-67 and Figure 2-3).

Regarding independent claims 56 and 79, Breen discloses a method for executing trades comprising: aggregating and netting a plurality of value-based trading orders for at least one instrument against each other to create a single value-based trading order for the at least one instrument, aggregating and netting a plurality of share-based trading orders for the at least one instrument against each other to create a single share-based trading order for the at least one instrument; and converting the single value based trading order for the at least one instrument

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and the single share based trading order for the at least one instrument into a series of contingent orders for the at least one instrument specifying a number of shares of the at least one instrument to be traded at a schedule of prices (column 12, lines 1-27).

Claims 57 and 80, modifying an amount specified in a value-based sell order, if a total value of a quantity of the instrument held by an originator of the value-based sell order in a specified value basis in the value-based sell order, based on a prevailing price of the instrument, is less than the amount specified in the value-based sell order (column 13, lines 3-15).

Claims 58, 59, 81 and 82 if a total value of a quantity of the instrument held by an originator of a value-based sell order in a specified value basis in the value-based sell order, based on a prevailing price of the instrument, is less than the amount specified in the value-based sell order, modifying the amount of the value-based sell order to be equal to the total value of the quantity of the instrument held by the originator of the value-based sell order in the specified value basis using the prevailing price of the instrument (column 9, lines 49-61 and column 12, lines 28-51).

### *Claim Rejections - 35 USC § 103*

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 9-11, 20-23, 28-30, 38-40, 60-62 and 83-85 rejected under 35 U.S.C. 103(a) as being unpatentable over Breen et al. (hereinafter Breen) U.S. Patent 6,615,188.

Regarding claims 9-11, 20-23, 28-30, 38-40, 60-62 and 83-85, Breen teaches specifying the number of shares to be bought and sold for an instrument, a dollar amount to be bought and sold in an instrument and a varying price (column 9, lines 18-48, column 12, lines 1-27 and column 12, lines 53-67). Breen fails to disclose arranging this information in an equation format to the number of shares. Official Notice is taken that calculating number of shares for a scheduled price is old and well known in the art. Therefore it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Breen to determine the number of shares at a scheduled price because it provides an efficient manner to provide a level of shares suitable for users of the apparatus to obtain their desired results.

***Conclusion***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefano Karmis whose telephone number is (703) 305-8130. The examiner can normally be reached on M-F: 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on (703) 308-1065. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully Submitted  
Stefano Karmis  
12 October 2004



**VINCENT MILLIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600**